CLAIMS

[c1]   1.   In a communication device, a method for reducing latency in a group communication network, the method comprising:

determining whether any media frame belonging to a communication protocol is lost, the media frame being directed to the communication device; and

modifying the communication protocol if a media frame is lost.

[c2]   2.   The method of claim 1, wherein the modifying includes sending multiple messages to a sender of the media frame requesting multiple copies of the lost media frame.

[c3]   3.   The method of claim 2, wherein the sending occurs after a predetermined time period.

[c4]   4.   The method of claim 2, wherein the messages include a negative-acknowledge (NAK) message.

[c5]   5.   The method of claim 1, wherein the communication device includes a push-to-talk device.

[c6]   6.   In a communication device, a method for reducing latency in a group communication network, the method comprising:

receiving a request from a user of the communication device wishing to initiate a group call;

receiving media from the user before processing the request; and

buffering the received media for later transmission to a controller.

[c7]   7.   The method of claim 6, wherein the receiving includes receiving the request through a push-to-talk (PTT) device.

[c8]   8.   The method of claim 6, further including:

transmitting the buffered media to the controller if the request is granted.

[c9]   9.   The method of claim 6, further including:

signaling the user to stop sending media if a memory unit used for buffering the received media runs out of space before the request is completely processed and media communication is not established between the communication device and the controller.

[c10]   10.   The method of claim 6, further including:

transmitting the buffered media to a target receiver if a memory unit used for buffering the received media runs out of space before the request is processed but media communication is established between the communication device and the controller.

[c11]   11.   The method of claim 6, wherein a memory unit used for buffering the received media is located in the communication device.

[c12]   12.   The method of claim 6, wherein a memory unit used for buffering the received media is located in the controller.

[c13]   13.   In a communication device, a computer-readable medium embodying a method for reducing latency in a group communication network, the method comprising:

determining whether any media frame belonging to a communication protocol is lost; and

modifying the communication protocol if a media frame is lost.

[c14]   14.   In a communication device, a computer-readable medium embodying a method for reducing latency in a group communication network, the method comprising:

receiving a request from a user of the communication device wishing to initiate a group call;

receiving media from the user before processing the request; and

buffering the received media for later transmission to a controller.

[c15]   15.   A communication device for reducing latency in a group communication network, comprising:

means for determining whether any media frame belonging to a communication protocol is lost; and

means for modifying the communication protocol if a media frame is lost.

[c16]   16.   A communication device for reducing latency in a group communication network, comprising:

means for receiving a request from a user of the communication device wishing to initiate a group call;

means for receiving media from the user before processing the request; and

means for buffering the received media for later transmission to a controller.

[c17]   17.   A communication device for reducing latency in a group communication network, the communication device comprising:

a receiver to receive information over the network;

a transmitter to transmit information over the network; and

a processor communicatively coupled with the receiver and the transmitter, the processor being capable of:

determining whether any media frame belonging to a communication protocol is lost; and

modifying the communication protocol if a media frame is lost.

[c18]   18.   The communication device of claim 17, wherein the modifying includes sending multiple messages to a sender of the media frame, requesting multiple copies of the lost media frame.

[c19]   19.   The communication device of claim 18, wherein the sending occurs after a predetermined time period.

[c20]   20.   The communication device of claim 18, wherein the messages include a negative acknowledge (NAK) message.

[c21]   21.   The communication device of claim 17, wherein the communication device includes a push-to-talk device.

[c22]   22.   A communication device for reducing latency in a group communication network, the communication device comprising:

a receiver to receive a request from a user who wishes to initiate a group call;

a memory unit to buffer media that is received from the user before the request is processed;

a transmitter for transmitting the buffered data to a controller after the request is processed; and

a processor for processing the received request and the media, the processor being communicatively coupled with the receiver, the memory unit, and the transmitter.

[c23]   23.   The communication device of claim 22, wherein the communication device includes a push-to-talk (PTT) device.

[c24]   24.   The communication device of claim 22, wherein the transmitter transmits the buffered media to the controller if the request is granted.

[c25]   25.   The communication device of claim 22, wherein the processor signals the user to stop sending media if a memory unit used for buffering the received media runs out of space before the request is completely processed and media communication is not established between the communication device and the controller.

[c26]   26.   The communication device of claim 22, wherein the transmitter transmits the buffered media to a target receiver if a memory unit used for buffering the received media runs out of space before the request is processed but media communication is established between the communication device and the controller.